



Oklahoma Department of Transportation Mix Design Report

Asphalt Concrete, Type S3 (PG 64-22 OK) Mat'l. Code: asco009
 (Material Full Name and Material Code)
 MPC Materials P/S # m00906
 (Producer/Supplier Name and Producer/Supplier Code)
 MPC Materials Markwell #30-35 (Portable) PLANT ID # m00906-03
 (Plant Name and Plant ID)

Insoluble - Recycled ID: I2
 (Design Type and Design Type ID)
 S3c00931800500
 (Mix ID)

Aggregate	Producer/Supplier	% USED
1" Rock	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	19
5/8" Chips	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	15
Man. Sand	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	15
Scrns.	Dolese Co (Davis, OK) P/S # m002745002	15
Sand (Unlisted Source)	General Materials, Inc(Okc,OK)m001911402	11
Coarse R.A.P.	Contractor / Project Site P/S # Contractor	15
Fine R.A.P.	Contractor / Project Site P/S # Contractor	10

Asphalt Cement: Asphaltic Cement Type PG 64-22 OK, acem003, Gary Williams Energy (Wynnewood, OK), m00357
 (Material Full Name, Material Code, Producer/Supplier Name, Producer/Supplier Code)

Sieve Size	Producer/Supplier:								Comb. Agg.	Requires Form 93-E0 signed by the Department for production use. -Oklahoma D.O.T. Materials-			% Tol. (±)
	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Hanson Aggregates, WRP Inc (Davis, OK) P/S # m001985008	Dolese Co (Davis, OK) P/S # m002745002	General Materials, Inc(Okc,OK)m001911402	Contractor / Project Site P/S # Contractor	Contractor / Project Site P/S # Contractor			JMF	Min.	Max.	
1" Rock	100	100	100	100	100	100	100	100	100	100	100	0	
3/4 in (19 mm)	69	100	100	100	100	96	100	94	94	87	100	7	
1/2 in (12.5 mm)	24	89	100	100	100	83	100	81	81	74	88	7	
3/8 in (9.5 mm)	7	62	100	100	100	70	99	72	72	65	79	7	
#4 (4.75 mm)	2	13	100	87	100	46	89	57	57	50	64	7	
#8 (2.36 mm)	2	3	71	54	100	33	73	43	43	38	48	5	
#16 (1.18 mm)	2	2	45	34	98	27	59	33	33	29	37	4	
#30 (.600 mm)	2	2	24	23	90	22	48	26	26	22	30	4	
#50 (.300 mm)	1	2	14	17	50	17	36	17	17	13	21	4	
#100 (.150 mm)	1	2	7	13	9	10	20	8	8	5	11	3	
#200 (.075 mm)	1.1	1.4	3.9	10.9	1.3	5.7	10.8	4.7	4.7	2.7	6.7	2	
AC Content %						3.9	5.4	4.3	4.3	3.9	4.7	0.4	

Mix temperature @ discharge from mixer: 305 (152) ± 20 °F (± 10 °C) **Required**
 Optimum roadway compaction temperature: 290 (143)
 Laboratory mixing temperature: 325 (163)
 Laboratory compaction temperature: 300 (149)

Tests on Asphalt Cement	Found
Specific Gravity @ 77 ° F	1.0100

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Tests on Compressed Mixtures (@ Design AC)			
	# Gyr.	% Density of Gmm	% Density Required
Nini	6	89.5	85.5 - 91.5
Ndes	50		96.0

Tests on Aggregates	Required	Units
Durability Index	75	40 min. %
F.A.A. %U	N/A	%
Flat and Elongated	0	10 max. %
Fractured Faces	100/100	85/80 min. %
Insoluble Residue	59.5	30 min. %
LA Abrasion	25.3	40 max. %
Micro-Deval	16.2	N/A %
Permeability	2.9	12.5 max. 10 ⁻⁵ cm/s
Sand Equivalent	83	40 min. %
IOC	0.35	%
Gse	2.713	
Gsb	2.684	
Specimen Weight	4940	g

Tests on Compressed Mixtures								
%AC	Gmb	Gmm	% Density		% VMA	% VMA Required		% VFA
			of Gmm	% Density Required		Design / Field	Design / Field	
4.3	2.425	2.530	95.8	Design / Field	13.5	Design / Field	68.9	% VFA Required
4.8	2.446	2.510	97.5	96.0 / 94.5 - 97.4	13.2	13.5 / 13.0	81.1	70 - 75
5.3	2.461	2.490	98.8		13.2		90.9	

Dust Prop.
 1.2 **Dust Prop. Req.** 0.6 - 1.6
 1.1
 1.0

ITS (PSI) 159.8 N/A min.
TSR 0.85 0.80 / 0.75 min. (Design / Field)
Compacted Wt. (lbs/sy/1" thick) = 111.3 @ 4.3 % Asphalt Cement
 3.2 % New Asphalt Cement

Hamburg Rut Test Depth (mm) 1.90 12.50 max. @ 10,000 cycles

MEETS SPECIFICATION REQUIREMENTS PER SPECIAL PROVISION 708-26(a-f) 09

Comments: Similar to S3pv0261200500 (Plant ID Change)

Last Modified By: Suitor, Kevin ksuito (User Name and User ID)

Date: 1/31/2018 (mm/dd/yyyy)